

**REMARKS**

Reconsideration of the subject application is respectfully requested.

In paragraph 1 (page 3) of the office action the Examiner states that if Claim 1 is found to be allowable, Claim 11 would be objected to under 37 CFR 1.75 as being a substantial duplicate. However, as MPEP 706.03 (k) states, court decisions have confirmed applicants right to restate the invention in a reasonable number of ways, with a difference in scope being acceptable. It is common practice to include element claims (e.g. Claim 1) and corresponding means-plus-function claims (e.g. Claim 11) to restate the invention with claims having a differing scope. Therefore, it is respectfully requested that the objection be withdrawn.

Claim 5 has been cancelled to expedite prosecution.

Claims 1-4 and 6-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu, which has common inventors with the present application. The Examiner recognizes that Shimizu fails to explicitly teach a feature of each of independent Claims 1, 6, 7, 8, 9, 10, and 11. That feature being a generator-stop preventing unit (means or step) that sets the amount of brake applied to the generator to a first brake setting value when a measured rotation period of the generator is equal to or longer than a first setting period, which is longer than a reference period, to prevent the generator from stopping.

However, the Examiner finds that such feature, although not explicit in Shimizu, is nonetheless taught in Shimizu's generator brake control system. This view is based, at least in part, on the Examiner's view that such feature is not clearly set forth in applicants' specification. However, such feature is explained in the specification and distinguished over the Shimizu-type generator brake control system, as discussed below. Please note also that each of the independent claims has been amended to even further distinguish the present invention from the prior art.

As discussed on page 15, lines 11 to 19, “in the present embodiment, the brake-control-signal generating circuit 81, which includes the rotation-period detection circuit 200, the brake-amount compensation circuit 300, and the signal-selection circuit 400, constitutes a brake-amount compensation unit (brake-control unit 55) for compensating (applying the compensation signals H01 and H02) the amount of brake according to the rotation period of the generator 2, and when the rotation period of the generator 2 is as long as 140 ms or longer, constitutes the generator-stop preventing unit 56 for continuing weak-brake control to give priority to preventing the generator 2 from being stopped.”

The rotation-period detection circuit 200 is shown in detail in Fig. 3 and discussed in detail beginning on page 10, line 8. The rotation period can be detected in a total of four stages with the reference period ( $1/(8 \text{ Hz}) = 125 \text{ ms}$ ) being placed at the center (see page 11, lines 11 and 12).

The brake-amount compensation circuit 300 is shown in Fig. 3 and discussed in detail beginning on page 11, line 17. As discussed at page 11, lines 30 to 35, “the compensation signals H01 and H02 compensate timing at which the brake control signal CH3 is changed from the H level to the L level according to the output QD of the up/down counter 60, that is, timing at which control (strong-brake control) in which a strong brake is applied is changed to control (weak-brake control) in which a weak brake is applied, according to the outputs SP1 to SP3 of the rotation-period detection circuit 200, that is, the rotation period of the rotor.”

Generally, the period of the rotation detection signal FG1 of the rotor is detected by the rotation-period detection circuit 200, the rotation period is compared with the reference-signal period to classify the rotation period into four stages, and according to this classification, a period in which a strong-brake control is performed by the brake control signal CH3, that is, a period in which the brake control signal CH3 has the H level, is adjusted. (Page 14, lines 14 to 20).

When such brake control is repeated, the rotation speed of the generator 2 approaches the specified rotation speed. As shown in Fig. 4, the up-count signal

and the down-count signal are alternately input, and the state proceeds to a lock state in which the count shows "8" or "7" repeatedly. Strong-brake control or weak-brake control is repeated according to the count and the rotation period. (Page 14, line 33 to Page 15, line 2).

However, when the rotation period of the rotor becomes equal to or longer than 140 ms, the brake control signal has the L level, irrespective of the output QD, until the rotation period of the rotor becomes shorter than 140 ms. (Page 15, lines 4 to 7). That is because "when the rotation period is 140 ms or longer, since the outputs SP1 to SP3 all have the L level, the brake control signal CH3 also has the L level." (Page 11, lines 27 to 29). Therefore, "when the rotation period is equal to or longer than the first setting period (140 ms), the brake-control signal CH3 is set to an L-level signal, and the generator-stop preventing unit 56 for performing weak-brake control by a chopper signal having a duty cycle of 1/16 is provided. Therefore, even if brake control is applied in a state in which the rotation period is long, the generator is positively prevented from being stopped." (Page 15, lines 26 to 31).

Thus, in the present invention, the generator-stop preventing unit sets the amount of brake applied to the generator to only a first brake setting value (only weak-brake control) when a measured rotation period of the generator is equal to or longer than a first setting period (140 ms), which is longer than a reference period (125 ms), to prevent the generator from stopping. So, unlike Shimizu (and the present invention brake control when the rotation period is below 140 ms), where strong braking and weak braking are alternated, the present invention sets the amount of braking to only weak braking when the rotation period equal or greater than a particular value, to prevent the generator from stopping.

This feature is neither shown nor suggested in the prior art and only with impermissible hindsight could the prior art be modified to meet the claimed invention.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration of the present application.

Respectfully submitted,



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